

2001-2002 Snow Mold (*Typhula ishikariensis* and *T. incarnata*)

The corporation-sponsored snow mold fungicide field study was conducted during the fall and winter of 2001-2002. Treatments were applied preventively on the Treetops/Sylvan Resort in Gaylord, MI on the dates indicated in Table 1. Treatments were applied to four replicate 6' x 9' creeping bentgrass (*Agrostis palustris*)/annual bluegrass (*Poa annua*) fairway plots where the turf was maintained at approximately ½" height of cut. Liquid treatments were applied with a CO₂ backpack sprayer at a pressure of 36 PSI and a volume of 100 GPA using a flat-fan, double-nozzle boom, unless otherwise indicated in Table 1. Granular products were pre-weighed and hand-applied.

Permanent snow covered the plots from late December through April 13. The study was rated on 16-April, 2002 immediately following snow-cover melt-off. The predominant snow mold species was *Typhula ishikariensis* with lesser amounts of *Typhula incarnata*. Microdochium patch (*Microdochium nivale*) was also observed and was the predominant snow mold on some plots as indicated in Table 1.

As can be seen in Table 1, disease pressure was only moderately severe at Tree Tops this year. Disease pressure was also somewhat uneven across the study, leading to variability in the data, except with the most efficacious treatments. As in recent years, tank mixes of standard fungicides of varying chemistries seemed to perform the best. Interestingly, 18 of the 19 best performing treatments all included chlorothalonil or PCNB.

Phytotoxicity and turf greening effects were observed in some plots, as indicated the data table.

Table 1. Michigan State University Snow Mold Data, 2001-2002

Location: Tree Tops/Sylvan Resort, Gaylord, MI								
Rating Date: 16-April, 2002								
Rating Scale: Percent plot area diseased with a combination of <i>Microdochium nivale</i> , <i>Typhula ishikariensis</i> and <i>T. incarnata</i> unless otherwise noted.								
#	Treatment and Rate/1000 sq ft	Appl date(s)	I ^c	II	III	IV	Mean ^b	LSD ^a
10	CH 26GT 8 fl oz + Dac. Ultrex 5.0 fl oz + Turfcide 400 12 fl oz	10/29	1	0	0	0	0.3	a
46	Bayleton (WG) 2 oz + Compass 0.25 oz (50WG) + Turfcide 400 6 fl oz	10/29	0.3	0.5	0.5	0.3	0.4	a
25	CH26GT 4 fl oz + Dac. Ultrex 5 oz + Polar Kote 4F 8 fl oz	10/29	0.5	(1)	0.3 ^t	(1)	0.7	a
45A	Heritage 0.4 oz + Banner Maxx 3 fl oz + Dac. Ultrex 5 oz	9/28						
45B	Heritage 0.4 oz + Medallion 0.33 oz + Dac. Ultrex 5 oz	10/29	1	0.5	0.3	1	0.7	a
44	Heritage 0.4 oz + Medallion 0.33 oz + Dac. Ultrex 5 oz	9/28,10/29	3	0.5	0 ^t	0.3	1.0	ab
72	UCC-UBI 4278 12 fl oz	10/29	5	(0.5)	0	0	1.4	ab
41	Heritage 0.4 oz + Banner Maxx 3 fl oz + Dac. Ultrex 5 oz	10/29	3	0.5	0.3	2	1.5	ab
47	Bayleton (WG) 2 oz + Compass 0.25 oz (50WG) + Dac. Ultrex 3.2 oz	10/29	2	2	0.5	2 ^d	1.6	ab
70	Turfcide 400 9 fl oz + Dac. Ultrex 3.7 oz	10/29	0.3	(3)	(0.3)	(3)	1.7	a-c
30	CH26GT 4 fl oz + Dac. Ultrex 5 oz + TADS 13093 16 oz /100 gal + Polar Kote 4F 8 fl oz	10/29	1	0	5	1	1.8	a-c
11	Scotts F+ FII 2x	10/29	(5)	(0.3)	(0.3)	(3)	2.2	a-d
76	Par Flo 8 fl oz + Lynx 2.22 oz	10/29	5(4) ^d	0	2 ^d	2 ^d	2.3	a-d
40	Medallion 0.33 oz + Banner Maxx 3 fl oz + Dac. Ultrex 5 oz	10/29	2	2	0	7 ^d	2.8	a-d
6	Insignia 0.9 oz + Defend (75 WP) 5.4 oz	9/28,10/29	(7)	(3)	0.3	(1) ^t	2.8	a-d
75	Par Flo 8 fl oz + Dac. Ultrex 6 oz + CH26GT 6 fl oz	10/29	(2)	1	1	10(5)	3.5	a-d
42	Heritage 0.4 oz + Medallion 0.33 oz + Dac. Ultrex 5 oz	10/29	5	2(1)	0.5 ^t	7	3.6	a-d
7	CH 26GT 4 fl oz + Dac. Ultrex 3.2 fl oz + Turfcide 400 6 fl oz	10/29	(10)	0.5	(3)	2	3.9	a-d
28	CH26GT 4 fl oz + Triton 1 fl oz + Polar Kote 4F 8 fl oz + TADS 13093 16 oz/100 gal	10/29	(7)	(0.5)	5(2) ^f	7(1)	4.1	a-d
48	Lynx (45WP) 2.22 oz + Compass (50WG) 0.25 oz	10/29	3 ^e	0 ^d	7 ^d	7 ^d	4.3	a-d
5	Insignia 0.9 oz + Iprodione Pro-SE 4 fl oz	9/28,10/29	(15)	3	0	0.3	4.6	a-d
24	CH26GT 4 fl oz + TADS 12529 8.5 gm + Polar Kote 4F 8 fl oz	10/29	(5)	(3)	0.3	12	5.1	a-d
43	Medallion 0.5 oz + Banner Maxx 4 fl oz	9/28,10/29	0.3 ^d	(20) ^d	0	2(1)	5.6	a-d
29	CH26GT 4 fl oz + TADS 12529 8.5gm + TADS 13093 16 oz/100gal + Polar Kote 4F 8 fl oz	10/29	(20)	0.3	2(1)	0.5	5.7	a-d
68	Polar Kote 4F PCNB (4L) 6 fl oz + Dac. Ultrex 3.8 oz + CH26GT 4 fl oz	10/29	(3)	0	0 ^t	(20)	5.8	a-d
37	Medallion 0.5 oz + Banner Maxx 4 fl oz	10/29	3(2) ^t	(7)	5(2) ^t	10(9)	6.3	a-d
49	Lynx (45WP) 2.22 oz + Compass (50WG) 0.25 oz + Dac. Ultrex 3.2 oz	10/29	15 ^d	0 ^e	0	10 ^d	6.3	a-d
67	Polar Kote 4F PCNB (4L) 8 fl oz	10/12,10/29	(10)	(15)	0	(1)	6.5	a-d
38	Medallion 0.5 oz + Dac. Ultrex 5 oz	10/29	3	20	0	7(4)	7.5	a-d
19	Spectro 4 oz + Nutri-Gro 3 oz + Defend 8 oz	10/29	(25)	0	5	(0.3)	7.6	a-d
20	Spectro 5 oz + Nutri-Gro 3 oz + Defend 8oz	10/29	(20)	1	0	(10)	7.8	a-d
14A	Spectro 5 oz + Nutri-Gro 3 fl oz	9/28						
14B	Defend 8 oz	10/29	25(20)	(3)	3(2)	1	8.0	a-d

73	Par Flo 4F 12 fl oz	10/29	5(3)	(10)	0	20(5)	8.8	a-e
13A	Spectro 5 oz	9/28						
13B	Spectro 5 oz + Nutri-Gro 3 fl oz	10/29	30(20)	0.5	(0.3) ^f	5(1)	9.0	a-e
23	CH26GT 4 fl oz + Triton 1 fl oz + Polar Kote 4F 8 fl oz	10/29	(20)	7(5)	0	10(2) ^f	9.3	a-f
50	AND HG 4 lbs	9/28,10/29	(20)	10(3)	2(1)	5(3)	9.3	a-f
8	Consyst 7.34oz + Turfcide 400 6 fl oz ^h	10/29	(15)	3(2)	0.3	20(17)	9.6	a-g
1	Insignia (20 WG) 0.9 oz	10/29	25(15)	5(1)	2(1)	7(1)	9.8	a-g
74	Par Flo 8 fl oz + Heritage 0.4 oz	10/29	(20)	15(1)	(3)	3	10.3	a-g
16A	Spectro 5 oz	9/28						
16B	Spectro 4 oz + Nutri-Gro 3 oz + Defend 6 oz	10/29	(35)	(2)	3	0	10.0	a-h
51	AND HG5 4 lbs	9/28,10/29	35(30)	0	1	(7)	10.8	a-h
2	Insignia (20 WG) 0.9 oz	9/28,10/29	(30)	20(17)	0.5	0	12.6	a-h
39	Heritage 0.4 oz + Medallion 0.5 oz	10/29	(20)	3	25(15)	(5)	13.3	a-i
26	CH26GT 4 fl oz + Triton 1 fl oz + TADS 13093 16 oz/100 gal	10/29	0.3	25(20)	25	7(5)	14.3	a-j
71	UCC-UBI 4277 15 fl oz	10/29	12	(25)	(0.3)	20(10)	14.3	a-j
15A	Spectro 5 oz	9/28						
15B	Spectro 5 oz + Defend 6 fl oz	10/29	(10)	(35)	0	(15)	15.0	a-j
34	CH 26GT 4 fl oz + Dac. Ultrex 3.2 oz + Turfcide 400 6 fl oz	10/29	(35)	(15)	(3)	7(2)	15.0	a-j
69	Turfcide 400 12 fl oz	10/29	(10)	(0.3) ^f	1	50(47) ^f	15.3	a-k
27	CH26GT 4 fl oz + TADS 12529 8.5 gm + TADS 13093 16 oz/100 gal	10/29	3 ^d	5(1) ^f	15(2)	40	15.8	a-l
31A	Signature 4 oz	10/12						
31B	Signature 4 oz + CH 26GT 4 fl oz + Triton 1 fl oz	10/29	35	5	15	10(2)	16.3	a-l
18	Spectro 4 oz + Defend 8 oz	10/29	(35)	(35)	0	0	17.5	a-l
35	Lesco PCNB with Novex fert. 6 lbs	10/29	(35)	(5) ^f	(10)	(25) ^f	18.8	a-m
62	AND 917-01 6.66 lbs	10/29	50(35)	15(3)	5(4)	10(7)	20.0	a-m
32A	Signature 4 oz	10/12						
32B	Signature 4 oz + CH 26GT 4 fl oz + Polar Kote 4F 8 fl oz	10/29	(35)	(10)	30(10)	7(3)	20.5	a-n
55	AND 904-01 4.8 lbs	10/29	40	3(1)	20(1)	20	20.8	a-n
21	CH26GT 4 fl oz + Triton 1 fl oz	10/29	35(10)	20(15)	10	20(7)	21.3	a-n
12A	Spectro 5 oz + 12-2-12 4.2 lbs	9/28						
12B	Defend 8 oz + 12-2-12 4.2 lbs	10/29	25(20)	20(10)	(5)	40(35) ^f	22.5	c-n
22	CH26GT 4 fl oz + TADS 12529 8.5 gm	10/29	35(5)	15	15(5) ^f	25(5)	22.5	c-n
53	AND 897-01 7.2 lbs	10/29	40(15)	30(20) ^f	2(1)	20(5)	23.0	d-o
3	Honor (50 WG) 0.2 oz	10/29	(70)	35(30)	(5)	7(3) ^d	29.3	e-p
65	AND 921-01 6.66 lbs	10/29	60(10)	(7)	(25)	(25)	29.3	e-p
66	Polar Kote 4F PCNB (10G) 10 lbs	10/29	40(35)	20(15)	10	50(35)	30.0	f-p
77	AND 922-01 6.66 lbs	10/29	35(15)	0	35(30)	(50)	30.0	f-p
59	AND 908-01 7.2 lbs	10/29	40(25)	30(15)	2	50(35)	30.5	g-q
63	Tee Time 10-0-14 w/ PCNB 6.66 lbs	10/29	(60) ^f	(3) ^f	10(9)	50(25)	30.8	g-q
54	AND 898-01 7.2 lbs	10/29	40(20)	25(5)	10(5)	50(25)	31.3	h-q

36	Zerotol 6 fl oz ^g	10/29,10/30,10/31	20	0.3	75(35)	40(15)	33.8	i-q
56	AND 905-01 4.8 lbs	10/29	25(2)	40(5)	50(7)	25(22)	35.0	j-q
58	AND 907-01 4.0 lbs	10/29	45(10)	0.3	45(15)	50(5) ^f	35.1	j-q
52	AND 896-01 7.2 lbs	10/29	40(30)	35(10)	65(2)	5(1)	36.3	k-q
4	Honor (50 WG) 0.2 oz	9/28,10/29	(80)	7 ^d	20(3)	(40)	36.8	l-q
17	Defend 8 oz	10/29	(60)	(65)	2	20(10)	36.8	l-q
64	AND 920-01 6.66 lbs	10/29	60(50)	(35) ^f	(3) ^f	60(58)	39.5	m-q
61	AND 910-01 7.2 lbs	10/29	40	50(45)	25	50(20)	41.3	n-q
33A	Signature 4 oz	10/12						
33B	Signature 4 oz + Polar Kote 4F 8 fl oz	10/29	(75)	60(55) ^f	(10)	30(7)	43.8	o-q
60	AND 909-01 7.2 lbs	10/29	45(40)	60(40)	25(23)	65(60)	48.8	pq
9	Control	---	95(45)	50(2)	15(2)	40(15)	50.0	pq
57	AND 906-01 4.0 lbs	10/29	45(35)	85(75)	10(9)	65(3) ^f	51.3	q

^aTreatments followed by the same letter are not significantly different from each other (LSD, p=0.05).

^bAverage rating of 4 replicate plots.

^cPlot rating represent total percent plot area diseased (*Typhula* species and *Microdochium nivale*.) Parentheses represent percent of plot area infected by *Typhula* species only.

^dIndicates mild phytotoxicity.

^eIndicates moderated phytotoxicity.

^fIndicates turf greening.

^gTreatment applied in 4 gal/1000 ft² spray volume.

^hTreatment applied in 3 gal/1000 ft² spray volume.